

Application No.: 10/807,746

Docket No.: 28335/39196A

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**AMENDMENT TO THE CLAIMS**

1. (withdrawn) An isolated polynucleotide comprising a nucleotide sequence of any one of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6 or SEQ ID NO: 40.

2. (withdrawn) An isolated polynucleotide comprising a nucleotide sequence encoding an amino acid sequence of any one SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, or SEQ ID NO: 41.

[[4]] 3. (currently amended) An isolated polypeptide comprising an amino acid sequence encoded by a nucleotide sequence of claim 1 or a fragment thereof.

[[5.]] 4. (currently amended) An isolated polypeptide comprising an amino acid sequence of any one SEQ ID NO: 7, ~~SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12 or SEQ ID NO: 41~~.

[[6.]] 5. (currently amended) A composition comprising a polypeptide of claim 4 or 5 and a pharmaceutically acceptable carrier.

[[7.]] 6. (withdrawn/currently amended) An antibody that specifically binds to a polypeptide of claim 4 or 5 or fragment thereof.

[[8.]] 7. (withdrawn/currently amended) A composition comprising an antibody of claim 8 and a pharmaceutically acceptable carrier.

[[9.]] 8. (withdrawn/currently amended) A method for detecting NTHi bacteria in a biological sample comprising

(a) contacting a polynucleotide of claim 1 or a fragment thereof with a biological sample, and

(b) detecting hybridization of the polynucleotide within the sample.

[[10.]] 9. (withdrawn/currently amended) A method for detecting NTHi bacteria in a biological sample comprising

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- (a) contacting a polynucleotide of claim 2 or a fragment thereof with a biological sample, and
- (b) detecting hybridization of the polynucleotide within the sample.

[[11.]] 10. (withdrawn/currently amended) A method for detecting NTHi bacteria in a biological sample comprising:

- (a) contacting an antibody of claim 7 with a biological sample, and
- (b) detecting binding of the antibody within the sample.

[[12.]] 11. (withdrawn/currently amended) The method of any one of claims 9-11 wherein the biological sample is selected from the group consisting of serum, sputum, ear fluid, blood, urine, lymphatic fluid, and cerebrospinal fluid.

[[13.]] 12. (withdrawn/currently amended) A method for eliciting an immune response to NTHi bacteria comprising administering an immunogenic dose of a polypeptide of claim 4 or 5 or a fragment thereof to a patient at risk of NTHi bacterial infection.

[[14.]] 13. (withdrawn/currently amended) A method of treating or preventing NTHi bacterial infection comprising administering a molecule that inhibits expression or activity of a polypeptide of claim 4 or 5 to a patient in need.

[[15.]] 14. (withdrawn/currently amended) The method of claim 14 wherein the molecule administered to the patient in need is an antisense oligonucleotide.

[[16.]] 15. (withdrawn/currently amended) The method of claim 14 wherein the molecule administered to the patient in need is an antibody.

[[17.]] 16. (withdrawn/currently amended) The method of claim 14 wherein the molecule administered to the patient in need is a small molecule.

[[18.]] 17. (withdrawn/currently amended) The method of claims 14 wherein the NTHi infection is in the middle ear.

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[[19.]] 18. (withdrawn/currently amended) A method of modulating virulence of a NTHi bacterium comprising mutating genes within the *sap* operon wherein the mutation increases sensitivity to antimicrobial agents.